ENVIRONMENTAL ASSESSMENT
PROPOSED MINING AND RECLAMATION PLAN
ANACONDA COMPANY URANIUM MINES P-15 & P-17
LAGUNA TRIBAL LEASE NO. 4

1. DESCRIPTION OF THE PROPOSED ACTION

P-15 Mine is in Sec. 9, T 10 N., R 5 W; and P-17 Mine is in Secs. 9 & 16, T 10 N, R 5 W. Vertical shafts, 12 feet in diameter, will be sunk at each mine which will serve as ore hoists, as well as personnel and supply shafts.

Proposed access and ore haulage roads, mine yards, shaft sites, ventilation shafts and other surface installations are planned to facilitate efficient mine operation and will occupy approximately 41 acres. Waste derived from mining will be used for paving material. The surrounding shaft site areas are for excavation and waste fill.

At the initiation of mine yard areas excavation activity:

(a) Topsoil will be removed and stored in a manner to be utilized for covering the disturbed area at the conclusion of the mining activity.

(b) Most of the development waste will be used to level the area for a supply storage and stockpiling yard. At the two mines, approximately 272,458 tons of waste will be mined from the following development operations: shaft 12,311 tons, haulage drift 218,673 tons, raise 29,856 tons, and ventilation shaft 11,618 tons. (25 ventilation shafts are planned in addition to the main hoisting shaft).

(c) Any water collecting in the mine will be pumped and piped from the shaft to earthfill settling ponds to evaporate the water and preclude it from flowing into dry stream channels. Sewage lagoons will be constructed for all other waste materials.

At the conclusion of the operation:

(a) Mine openings will be sealed in accordance with regulations in effect at the time.

(b) Reclamation plans include grading, scarifying, required liming of haulage and access roads as well as the ventilation shaft and mine yard areas.

(c) The settling-evaporation ponds and sewage lagoons will be backfilled.

(d) The topsoil initially excavated and stockpiled will be distributed and seed-drilled in season in an accepted manner.

2. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. NON-LIVING COMPONENTS

The general location is approximately two miles south of Paguate, 3.5-4 miles north of Laguna and approximately .5 miles west of NM Highway 279. It is generally characterized by a rough and broken terrain, including plateaus and mesas intermingled with steep canyon walls, escarpments, and valley or plains areas. The plateau and mesa tops are gently to strongly sloping and undulating or rolling, while the sides or fronts are commonly steep to very steep. The altitude of the leased area ranges from slightly less than 6300 feet on the east edge to almost 7,000 feet on the west side. The dominant soil within the area is shallow, fine-textured, slowly permeable, moderately eroded, developed from Basalt and occurs on moderately steep to steep (12-55%) slopes.

The climatic pattern of the region is a semi-arid continental type. Nearly half the precipitation occurs during the summer months as convectional storms of great intensity and short duration. The annual average precipitation is approximately 10". By virtue of the above factors, the area suffers a relatively high loss of precipitation through surface runoff and a correspondingly high rate of surface erosion and siltation. Little or no seepage of water into the mine shaft is anticipated; however, settling-evaporation pond construction is planned to avoid the possibility of contaminating the natural drainage channels.

The quality of the ambient air has not been determined; however, due to the pastoral nature of the location, the air-borne pollutants should be minimal. The quality of the air will deteriorate during the operation of the mine but, following cessation of operations activity and implementation of reclamation practices, the air quality will be restored to its present pollutant-free state.

B. LIVING COMPONENTS

The dominant plants within the area consist of Sideoats Grama and Fencewing Saltbrush. Plants of lesser prominence include Snakeweed, Cactus, Three-Awn, Ring Muhly and other less desirable forage plants.

The area is a portion of a grazing range unit presided by domestic livestock and some wildlife. Livestock numbers are relatively stable being under proper management controls. Wildlife numbers vary periodically dependent on the availability of forage and water. There are no human inhabitants in the area.

C. ECOLOGICAL INTERRELATIONSHIPS

The total surface area disturbed will approximate 41 acres; the largest site being 7.23 acres. In the past, the lessee has initiated erosion control measures warranted during the period of mine operation. In relation to the total area involved, the ecological interrelationships destroyed on the 41 acres are insignificant when the economic benefits are considered. Those ecological interrelationships disrupted during mining operations will be resurrected during reclamation.

D. AESTHETICS

Roads (haulage and access), settling ponds, sewage lagoons, ventilation shaft stations, explosive storage buildings, office-change houses, shop buildings, hoist houses and power lines are temporary and will be removed or disposed of pursuant to the terms of the lease agreement. Reclamation should restore the sites to their natural state. The aesthetics of the area will not be permanently destroyed or impaired.

E. HUMAN INTEREST VALUES

Within the confines of the proposed action, there are no known elements of an educational-scientific, historical or cultural nature endangered. Presumably, archeological clearance was granted prior to approval of the formal lease.

3. ENVIRONMENTAL IMPACTS OF PROPOSAL

The mine operations will have an economic impact in the form of mineral royalties which will ultimately benefit the 5,700+ Laguna tribal members. An employment socio-benefit will also accrue for tribal members.

The impact on the environment will be radical on the 41 acres subject to re-shaping from placement of 272,458 tons of waste. Reclamation plans will restore the disturbed areas to their natural state.

4. MITIGATING MEASURES

At the initiation of excavation activity for the mine yard areas, top soil will be removed and stored in a manner as to be utilized for covering the disturbed area at the conclusion of mining activity. Mine water which may seep into and accumulate in the shaft will be piped to earthfill settling ponds to settle out all particulate matter and evaporate the water rather than allow it to discharge into existing drainage channels.

5. ADVERSE IMPACTS

The mining operation will generate heavy equipment noise and dust associated with traffic on dirt roads. The adverse impacts are all temporary, except for the 41 acres utilized as roads, mine yards, settling ponds, shaft stations, etc. At the conclusion of the operation, mine openings will be sealed in accordance with regulations in effect at that time and reclamation activities will be initiated.

6. RELATIONSHIP BETWEEN SHORT-TERM USE & LONG-TERM PRODUCTIVITY

The schedule of mine operations from start of development through the end of mining will be from mid-1976 through mid-1986, a period of 10 years. It is not anticipated any surface subsidence will occur since the ore bodies are small, thin and sporadically distributed. Reclamation activities will be implemented as the mining operation is terminated. Success or failure of reclamation will be contingent on at least two factors; namely, (1) a favorable year from the standpoint of precipitation, and (2) management by the livestock owners who normally utilize the forage produced in the area. The reclamation period can be extended abnormally should the precipitation be unusually irregular on the freshly seeded sites, or should the livestock owners find it necessary to heavily graze the area at the same time reclamation is being attempted.

7. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Implementation of the lessee's mining plan commits an estimated 1,112,310 tons of uranium ore to excavation and processing and approval of the lease represented the irreversible and irretrievable commitment of resources. This proposal simply acknowledges the chronological process to be followed in the development of the mine, extraction of the ore-body, and ultimate reclamation of the land surface affected by the plan.

Neither the Company's proposed mining and reclamation plan for the two mines, nor the USGS memo dated 3/19/76, make any mention of level of radio-activity of the 272,458 tons of mine waste. Provisions have been omitted for monitoring the waste for hazardous emission of Radon Gas. The disposition of radioactive waste is outside the realm of determination of the Agency Committee, but is a valid item for consideration as there will be people who may maintain residence in the immediate vicinity, will work in the area during the period of reclamation, and the area forage produced will be utilized by the Indian livestockmen.

8. ALTERNATIVES TO PROPOSAL

No alternatives to this proposed action were submitted for consideration. The obvious alternative of "No Action" would naturally have adverse effects on the existing socio-economic condition of the Laguna and Paguate communities.

9. INTENSITY OF PUBLIC INTEREST OR CONTROVERSY

The Jack Pile Mine (an open-pit operation) is located nearby and has been in operation for several years. This proposed action should not generate any public interest or controversy unless the issue that the health of local residents is being endangered causes concern.

10. PERSONS, GROUPS AND GOVERNMENT AGENCIES CONSULTED

Representatives named below were involved or contributed to the proposed action:

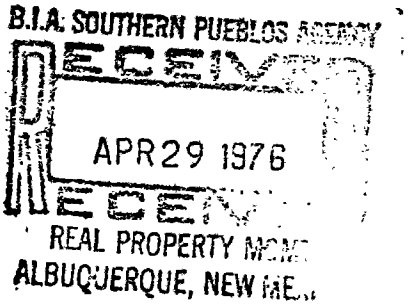
Anaconda Company
U. S. Geological Survey, Office of Mining Engineer
BIA-SPA, Branch of Real Property Management
Laguna Tribal Officials.

11. RECOMMENDATION WHETHER AN ENVIRONMENTAL STATEMENT SHOULD BE PREPARED

Conceiving that the determination concerning disposition of radio-active waste and the subsequent potential emission of Radon Gas is outside the realm of responsibility of this Committee, we can only conclude that the quality of the human environment will not be adversely affected; therefore, the preparation of an environmental impact statement is not deemed necessary.

SOUTHERN PUEBLOS AGENCY

ENVIRONMENTAL ASSESSMENT COMMITTEE



Mark J. Stevens, Chairman

Joe E. Lofties, Member

John R. Baker, Member

Date: April 26, 1976